

Abstracts

Monolithic resistive mixers for 60 GHz direct conversion receivers

K.S. Ang, M. Chongcheawchamnan and I.D. Robertson. "Monolithic resistive mixers for 60 GHz direct conversion receivers." 2000 Radio Frequency Integrated Circuits (RFIC) Symposium 00. (2000 [RFIC]): 35-38.

Single-ended and balanced monolithic mixers for direct conversion at V-band are presented. Resistive PHEMTs are employed with reactive feedback between gate and drain, and IF extraction from the source. Low conversion loss is achieved with high isolation and low intermodulation. Successful demodulation of a 1 Mbit/s BPSK signal at 60 GHz demonstrates the technique for millimeter wave direct conversion receivers.

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